

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-36γ/IL-1F9 in Western blots. In Western blots, approximately 10% cross-reactivity with recombinant human (rh) IL-36α is observed, and less than 1% cross-reactivity with rhIL-1α, rhIL-1β, rhIL-18, rhIL-36Ra, rhIL-37, and rhIL-36β is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human IL-36γ/IL-1F9 Met1-Asp169 Accession # Q9NZH8
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 μg/mL	Recombinant Human IL-36γ/IL-1F9 (Catalog # 2320-IL)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human interleukin 1 family member #9 [IL-1F9; also named IL-1ε (epsilon) and IL-1H1] is a member of the IL-1 family, which includes IL-1β, IL-1α, IL-1ra, IL-18 and IL-1F5 through F10 (1-4). All family members show a 12 β-strand, β-trefoil configuration, and are believed to have arisen from a common ancestral gene that has undergone multiple duplications (4). IL-1F9 is synthesized as a 19 kDa, 169 amino acid (aa) protein that contains no signal sequence, no prosegment and no potential N-linked glycosylation site (1, 2, 5). The molecule is secreted when transfected into 293-T cells (5). Human to mouse, IL-1F9 has 53% aa sequence identity. Within the family, IL-1F9 shares 30%, 23%, 33%, 57%, 35%, 45%, and 32% aa sequence identity with IL-1 ra, IL-1β, IL-1F5, F6, F7, F8, and F10, respectively. Cells reported to express IL-1F9 include Langerhans cells, keratinocytes/stratified squamous epithelium, plus Chief cells and Parietal cells of the stomach (4, 5). The receptor for IL-1F9 is reported to be a combination of IL-1 Rrp2 and IL-1 RAcP (6). Recombinant IL-1F9, along with IL-1F8 and IL-1F6, has been shown to activate the pathway involving NF-κB and MAPK in an IL-1 Rrp2 dependent manner.

References:

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4. Dunn, E. *et al.* (2001) Trends Immunol. **22**:533.
5. Debets, R. *et al.* (2001) J. Immunol. **167**:1440.
6. Towne, J.E. *et al.* (2004) J. Biol. Chem. **279**:13677.